UNITED STATES PATENT AND TRADEMARK OFFICE

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EXAMINER
TRAN, QUOC A

ART UNIT	PAPER NUMBER
2176	

DATE MAILED: 08/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>05/14/2004</u>.
2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-20</u> is/are pending in the application.
    4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) <u>1-20</u> is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a)☐ All b)☐ Some * c)☐ None of:
      1.☐ Certified copies of the priority documents have been received.
      2.☐ Certified copies of the priority documents have been received in Application No. _____.
      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>05/15/2004</u>.
4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5)☐ Notice of Informal Patent Application (PTO-152)
6)☐ Other: _____.

DETAILED ACTION

1.   This action is responsive o Amendment A, filed 05/14/2004.

2.   Claims 1-20 are currently pending in this application. Claims 1, 9, and 17 are

independent claims.

Claim Rejections - 35 USC § 112

3.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

**The specification shall conclude with one or more claims particularly
pointing out and distinctly claiming the subject matter which the applicant
regards as his invention.**

4.   Claims 1-8 are rejected under 35 U.S.C. 112, second paragraph, as being

indefinite for failing to particularly point out and distinctly claim the subject matter which

applicant regards as the invention. Is Applicant claiming a method of inserting

"footnotes", that are on a compute-readable medium, or a method of inserting

"footnotes" said method implemented in a computer-readable medium. Furthermore,

how is the method implemented in a computer-readable medium? The method can be

encoded in a computer-readable medium and implemented when read from that

particular medium. Clarification and/or correction are required.

5.   Claims 17-20 are rejected under 35 U.S.C. 112, second paragraph, as being

indefinite for failing to particularly point out and distinctly claim the subject matter which

applicant regards as the invention. Is Applicant claiming a method of managing

rendered "footnotes", that are on a compute-readable medium, or a method of

managing rendered "footnotes" said method implemented in a computer-readable

medium. Furthermore, how is the method implemented in a computer-readable

medium? The method can be encoded in a computer-readable medium and

implemented when read from that particular medium. Clarification and/or correction are

required.

6.   In regards to claims 1-8, and 17-20, because as being indefinite for failing to

particularly point out and distinctly claim the subject matter which applicant regards in

the invention. Examiner interprets, as a computer implemented method of inserting

"footnotes", and a computer implemented method of managing rendered "footnotes".

Claim Rejections - 35 USC § 101

7.   35 U.S.C. 101 reads as follows:

> **Whoever invents or discovers any new and useful process, machine,
> manufacture, or composition of matter, or any new and useful improvement
> thereof, may obtain a patent therefor, subject to the conditions and
> requirements of this title.**

8.   **Claims 1-20 are rejected under 35 U.S.C. 101 because the claimed invention
is directed to non-statutory subject matter.**

As to independent claims 1, 9, and 17, the claimed invention is not tied to the
technological art environment or machine. The claimed invention is not embodied on a
computer readable medium, nor are the "executable instructions" explicitly recited as
being carried out, or functionally tied in, to a computer environment. Therefore, the
claims read on steps that could be carried out mentally and/or using paper and pencil.
For example, a method of inserting "footnotes", a method of rendered "footnotes",
furthermore, a method of managing rendered "footnotes", the claims read on steps that
could be carried out mentally and/or using paper and pencil.

As to dependent claims 2-8, 10-16 and 18-20 also are not tied to the
technological art environment or machine, and are rejected under the same rationale.

Claim Rejections - 35 USC § 102

9.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that
form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

**(b) the invention was patented or described in a printed publication in this
or a foreign country or in public use or on sale in this country, more than
one year prior to the date of application for patent in the United States.**

10.   **Claims 1-6, and 9-16 are rejected under 35 U.S.C. 102(b) as being**

unpatentable over Chirokas et al. US Patent No. 5,111,397 issued 05/05/1992

filed 12/11/1989 (hereinafter '397).

In regard to independent claim 1, as taught by '397 at col. 1, lines 41-42, the

body and footnote texts have been entered; compare with claim 1 *"receiving non*

footnote body data and footnote body data",

Also as taught by '397 at col. 1, lines 43-44, assemble all body and footnote

texts into respective pages; compare with claim 1 *"inserting the non footnote body*

data into one or more first locations within a media".

Also as taught by '397 at col. 5, lines 5-45, In FIG. 1, page -1- of the output

document contains 46 lines of body text with 3 footnote references 1), 2) and 3) The

text of Footnote 1) requires only a single line, but the texts of Footnotes 2) and 3) are

lengthy and do not fit in the space remaining on page -1-. ....In FIG. 2 the minimum

single line of body text is provided and no more was assembled because the

aforementioned second style requirements give priority to footnote text before a

second line of body text. In this example the remaining lines of the page are all

needed for footnotes whether for footnotes continuing from page -1 or for new

Footnotes 4) and 5) referenced on page 2 line 6. Accordingly, other results of the

second style requirements should be explained. Specifically, after the minimum two

lines of every footnote has been processed and the single line of footnote 4) has been

included, the remaining vacant lines of the output page -2- are first used for footnote

2), which is shown to be completed. The remaining vacant lines are then used for

continuing more text of Footnote 3) and no more is available for more text of

incomplete footnote 5; compare with claim 1 *"inverting the non footnote body data to*

one or more second locations when the footnote body data are inserted into the

media, wherein the footnote body data temporarily occupies portions of the one or

more first locations, and restoring the non footnote body data into at least some of the

first locations with the footnote body data occupying at least some of the one or more

of the second location", also as taught by '397 at col. 6, lines 60-67 (i.e. ... the last

good line" structure is updated including the necessary line ending variables. The

program then returns to block 201 of FIG. 6 and the process of assembling the next

line of body text is started (i.e. revert/invert the order of last good line into first of new

text).

In regard to dependent claim 2, as taught by '397 at col. 2, lines 12-14, body

text is always on every page because they place a maximum line limitation on each

page for footnote text; compare with claim 2 *"associating a dimension with a logical*

unit of the media".

In regard to dependent claim 3, as taught by '397 at col. 1, lines 56-59, first

footnote is referenced and only part of the footnote text fits on the remaining lines

available on that page, it is known to continue the remaining footnote text on as many

subsequent pages as needed to complete the footnote; compare with claim 3 *"the first*

locations occur sequentially before the second locations within the media".

In regard to dependent claim 4, as taught by '397 at col. 2, lines 39-54,

pagination/repagination utility program which produces the output pages...; compare

with claim 4 *"logical unit is an output page"*.

In regard to dependent claim 5, as taught by '397 at col. 1, lines 37-40, The

operator can then recall the body text display and continue typing further body text

until the next footnote reference point is reached; compare with claim 5 *"continuing to*

insert the footnote body data to a second output page when the output page is

populated and the footnote body data are not completely inserted into the media".

In regard to dependent claim 6, as taught by '397 at col. 1,lines 30-35, at the

footnote reference point, a menu is called from which a footnote task is selected. This

causes the display to change to a footnote text display and the operator then types in

the footnote text; compare with claim 6 *"receiving a citation data associated with the*

non footnote body data prior to inserting the footnote body data".

In regard to independent claim 9, *"receiving data including non footnote data*

and footnote data having one or more footnote citations and one or more footnote

bodies, inserting the non footnote data and at least one footnote citation serially into a

media; interrupting the insertion when at least one footnote citation is detected and

inverting a start location and an end location associated with a unit of the media such

that the end location houses the non footnote data and at least one of the footnote

citations while at least one of the footnote bodies are inserted serially at a start location

within the media. Wherein the inverting temporarily moves the non-footnote data to the

end location of the unit of media and permits at least one of the footnote bodies to be

inserted to the start location of the unit of media, which was previously occupied by

portions of the non footnote data; and swapping the start location and the end location

after inserting at least one of the footnote bodies such that the non footnote data and at

least one of the footnote citations are located at the start location and at least one of the

footnote bodies are located at the end location", as taught by '397 col. 5, lines 3-44 (i.e..

In FIG. 1, page -1- of the output document contains 46 lines of body text with 3 footnote

references 1), 2) and 3) The text of Footnote 1) requires only a single line, but the texts

of Footnotes 2) and 3) are lengthy and do not fit in the space remaining on page -1-. It

should be noted that the present invention has provided, as a result of the first style

requirements, at least two lines of text for the lengthy footnotes (Footnotes 2) and 3))

along with continuation messages 16 and 18 Although the use of a CONTINUED TO

message for referring a reader to the another page...), and also as taught by '397 at

col. 7, line8 through col. 8, line 5 (i.e..... a determination is made of the number of

footnotes to be processed... number is calculated by adding the number of cascading

footnotes to the number of new footnotes that are referenced in the line of body text

being assembled for the output document. Next, a loop is executed for processing two

lines of each footnote. For cascading footnotes the lines for the "CONTINUED FROM"

messages are added to the page... the program will return back to the calling routine

and begin the "last good line" process of FIGS. 7A and 7B... If there is a violation, the

program proceeds to block 310 and the "last good line" process is begun... A user 800

interacts with menus 802 for providing information such as headers, footers, page

length in lines and what input document 804 is to be paginated...).

In regard to dependent claim 10, the feature is taught in '397 at col. 2,

lines 12-14, body text is always on every page because they place a maximum line

limitation on each page for footnote text; compare with claim 10, *"the unit of the media*

is associated with a dimension".

In regard to dependent claim 11, the feature is taught in '397 at col. 1,

lines 48-50, all referenced footnotes fit on the bottom of an output page of the output

document; compare with claim 11 *"unit of the media is a page"*.

In regard to dependent claim 12, the feature is teaches in '397 col. 2,

line 2, footnotes having text; compare with claim 12,*"the non footnote data includes*

at least one of text data, image data, audio data, and video data".

In regard to dependent claim 13, the feature is taught in '397 at col. 6,

lines 30-40, when the flow path proceeds ...and the line being assembled does not fit

on the output page, the path leads to ... "last good line" which is the last line of body

text that did not violate any rules of style. The output page then ends with the recalled

"last good line." Continuing along this path results in the footnotes that were

processed after the last good line to be removed from the footnote queue. Those

removed footnotes are then available for inclusion in the next output page to be

assembled; compare with claim 13, *"managing the start and end locations within the*

unit of media using one or more pointers".

In regard to dependent claim 14, the feature is taught in '397 at col. 1, lines

55-64, first footnote is referenced and only part of the footnote text fits on the

remaining lines available on that page, it is known to continue the remaining footnote text on as many subsequent pages as needed to complete the footnote. If a second or additional footnote references are also on the same body text line containing the first footnote reference, the text of these other footnotes will not appear on the same page where they are referenced; compare with claim 14, *"inserting a remaining portion of at least one of the footnote bodies to a subsequent unit of the media when a space associated with the unit of media becomes fully occupied during the insertion of at least one of the footnote bodies"*.

In regard to dependent claim 15, the feature is taught in '397 at col. 1, lines 53-55, there is a general rule of document style that all footnotes should appear on the same page containing the body text where they referenced; compare with claim 15, *"associating dynamically resizable geometric areas within the unit of the media to house the footnote data and the non footnote data"*.

In regard to dependent claim 16, the feature is taught in '397 at col. 1, lines 48-50, all referenced footnotes fit on the bottom of an output page of the output document (common knowledge in the art, a page's dimension is commonly in a rectangular shape); compare with claim 16, *"associating dynamically resizable geometric areas within the unit of the media to house the footnote data and the non footnote data"*.

11.   **Claims 17-20 are rejected under 35 U.S.C. 102(b) as being unpatentable**

over Cuan et al. US Patent No. 4,503,515 issued 03/05/1985 filed 05/17/1982

(hereinafter '515).

     In regard to independent claim 17, as taught by '515 at col. 2,

lines 61-63, automatic system reference/footnote numbering and updating are

provided in a single pass through the document; compare with claim 17 *"associating*

an entry path for receiving footnote data with the unit of media",

     Also as taught by '515 at col. 1, lines 64-66, during preparation, body text is

keyed to a body text frame up to a reference point, a footnote reference number is

keyed, a footnote frame is called, a corresponding footnote number is keyed, text for

the footnote is keyed, and then the body text frame is recalled; compare with claim 17

"associating a second path for receiving non footnote body data with the unit of

media".

     Also as taught by '515 at col. 2, lines 45-55, the operator can hyphenate the

document, adjust line endings, cause page ending decisions and associated

window/orphan line decisions to be made, and cause printing of the document in a

single pass operation. Following input keying of the body and footnote text, operator

procedure calls for causing the system to assemble the body and footnote text. The

assembly operation involves combined merge and pagination operations to which

either one of two separate algorithms are acceptable; compare with claim 17

"*inverting a first location on the unit of media associated with the second path with an ending location. Associated with the entry path for purposes of inserting the footnote data into the unit of media*", also as taught by '515 at col. 19, line 60 through col. 20, line 10 (i.e.... managing the assembly of body and footnote text is provided in order that an operator may format and assemble footnote text in a document. Format and assembly of the footnote text can be either at the bottom of pages of the document or at the end of the document. In addition, according to the method and system of this invention, the operator can hyphenate the document, adjust line endings, cause page ending decisions and associated widow/orphan line decisions to be made, and cause printing of the document in a single pass operation. Following input keying of the body and footnote text, operator procedure calls for causing the system to assemble the body and footnote text. The assembly operation involves combined merge and pagination operations to which either one of two separate algorithms is acceptable. ... This determination is on a per page basis.... Thereafter, the document is ready to be printed).

In regard to dependent claim 18, the feature is taught in '515 at col. 2, lines 61-63, If footnotes are inserted, moved, or deleted from the assembled document, then the document must be reassembled to renumber the footnotes; compare with claim 18, "*restoring the first location associated with the second path and the ending location associated with the entry path for purposes of inserting the non footnote data body into the unit of media*".

In regard to dependent claim 19, the feature is taught in '515 at col. 15,

lines 36-45, routine RSOLVE to perform the actual resolution of footnote references.

Its function is to resolve each footnote reference control that the paginator

encountered after adjusting the cursored body text line. It is already assumed that

there is room at the bottom of the page for at least one more footnote text line and

that the footnote placement is the bottom of page, not bottom of document; compare

with claim 19, "*extending the entry path to a subsequent unit of media when the unit*

of media is full and insertion of all of the footnote data is not complete".

In regard to dependent claim 20, the feature is taught in '515 at col. 15,

lines 46-55, all of the footnotes on a page can be copied and formatted into the

formatted footnote TSB (140); compare with claim 20, "*formatting the footnote data*

and the non footnote body data within the unit of media after insertion".

Claim Rejections - 35 USC § 103

12.   **The following is a quotation of 35 U.S.C. 103(a) which forms the basis for**

all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed
> or described as set forth in section 102 of this title, if the differences between the
> subject matter sought to be patented and the prior art are such that the subject
> matter as a whole would have been obvious at the time the invention was made
> to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was
> made.

13.   **Claims 7- 8, are rejected under 35 U.S.C. 103(a) as being unpatentable over**

Chirokas et al. US Patent No. 5,111,397 issued 05/05/1992 filed 12/11/1989

(hereinafter '397), in view of Ferrel et al. US Patent No. 5,860,073 issued

01/12/1999 filed 07/17/1995 (hereinafter'073).

    Claim 7 is representing of claim 8;

    In regard to dependent claim 7, '397 does not explicitly teach, "*the non footnote*

body data and the footnote body data are received in an extensible Stylesheet language

format", however, as taught by '073 at col. 1 lines 50-55, (i.e....a style sheet, as used in

Microsoft Word, is a compilation of character and paragraph styles, with each style

containing properties for formatting marked text. These style sheets are associated with

a particular document to define how marked characters and paragraphs are displayed

to the use...).

    It would have been obvious to one of ordinary skill in the art at the time of the

invention to modify the teaching of '397 that including the function, wherein the

extensible Stylesheet language is the receiving format for the non footnote body data

and the footnote body data. One of ordinary skill would be motivated to perform such a

modification to easily modify, update the design layout, such as updating the character

and paragraph style, since the content of the information is separated from the design

layout, as taught by '073 at col. 2, line 60 through col. 3, line 5 (i.e....to modify...design

layout...).

In regard to dependent claim 8, *"rendering the non footnote body data and the footnote body data to an alternative format prior to insertion within the media",* as taught by '073 at col. 1 lines 15-20, (i.e.... display regions in a page do not contain any text at the time the style sheet is applied. Rather, the text is poured into the region when the title is displayed (also termed rendered) on the customer's computer...).

Response to Argument

14.   Applicant's arguments filed 05/14/2004 have been fully considered but they are not persuasive.

In response to applicant's arguments on page 6, claims 1-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Is Applicant claiming a method of inserting "footnotes", that are on a compute-readable medium, or a method of inserting "footnotes" said method implemented in a computer-readable medium. Furthermore, how is the method implemented in a computer-readable medium? The method can be encoded in a computer-readable medium and implemented when read from that particular medium. There for claims 1-8 remain rejected.

In response to applicant's arguments on page 6, claims 17-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out

and distinctly claim the subject matter which applicant regards as the invention. Is Applicant claiming a method of managing rendered "footnotes", that are on a compute-readable medium, or a method of managing rendered "footnotes" said method implemented in a computer-readable medium. Furthermore, how is the method implemented in a computer-readable medium? The method can be encoded in a computer-readable medium and implemented when read from that particular medium. There for claims 17-20 remain rejected.

In response to applicant's arguments on page 6, claims 1-20, the claimed invention is not tied to the technological art environment or machine. The claimed invention is not embodied on a computer readable medium, nor are the "executable instructions" explicitly recited as being carried out, or functionally tied in, to a computer environment. Therefore, the claims read on steps that could be carried out mentally and/or using paper and pencil. For example, a method of inserting "footnotes", a method of rendered "footnotes", furthermore, a method of managing rendered "footnotes", the claims read on steps that could be carried out mentally and/or using paper and pencil. There for claims 1-20 remain rejected.

In response to applicant's arguments in regards to claims 1, and 9 on page 7, that '397 does not teach all the limitations, particularly insert footnotes body data. The examiner respectfully disagrees, as taught by '397 at col. 1, lines 41-42, the body and footnote texts have been entered, also as taught by '397 at col. 1, lines 43-44, (i.e.…assemble all body and footnote texts into respective pages…); it is clearly

instituted the limitation of "insert footnote body data".   Further, Applicant's argue, that

when footnote body data is inserted, the non footnote body data is dynamically moved

to second locations by inverting within the media. This ensures that footnote body data

will fit within the media. The examiner respectfully disagrees, It is noted that the features

upon which applicant relies (i.e., the non footnote body data is dynamically moved to

second locations by inverting ... are not recited in the rejected claim(s). Therefore

claims 1, and 9 remain rejected. Since the independent claims 1, and 9 are remain

rejected lead to the rejection of their dependency claims 2-8, and 10-16 as well.

In response to applicant's arguments in regards to claims, 17-20 on page 8, that

'515 does not teach the limitation of "inverting". The examiner respectfully disagrees, as

taught by '515 at col. 19, line 60 through col. 20, line 10 (i.e.... managing the assembly

of body and footnote text is provided in order that an operator may format and assemble

footnote text in a document. Format and assembly of the footnote text can be either at

the bottom of pages of the document or at the end of the document. In addition,

according to the method and system of this invention, the operator can hyphenate the

document, adjust line endings, cause page ending decisions and associated

widow/orphan line decisions to be made, and cause printing of the document in a single

pass operation. Following input keying of the body and footnote text, operator procedure

calls for causing the system to assemble the body and footnote text. The assembly

operation involves combined merge and pagination operations (i.e. Examiner interprets,

as changing the order of footnote body data from end of page to beginning is the same

as reverting/inverting the order) to which either one of two separate algorithms is

Acceptable ... This determination is on a per page basis.... Thereafter, the document is

ready to be printed). Therefore claims 17-20 remain rejected.

Conclusion

15.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the mailing date of this final action.

16.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Quoc A. Tran whose telephone number is (703) 305-

8781. The examiner can normally be reached on Monday through Friday from 8:30AM

to 5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Joseph H. Feild can be reached on (703) 305-9792. The fax phone number

for the organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

/JOSEPH FEILD
SUPERVISORY PATENT EXAMINER

Quoc A. Tran
Patent Examiner
Technology Center 2176
August 8, 2004